

ABSTRACT OF THE DISCLOSURE

An intravascular catheter system for the treatment of occluded blood vessels that includes tissue displacement or hinged expansion members that are movable from a closed to an open position. An actuating assembly may be provided for moving the tissue expansion members between an open and closed position to exert a substantially lateral distal end force upon the region surrounding an occluded blood vessel. The tissue expansion members may stretch apart, tear or otherwise disrupt a vascular occlusion sufficiently to create a pathway that may support the passage or placement of a guidewire or an interventional vascular device across the occlusion or obstruction. Methods of crossing or displacing a vascular occlusion are further provided that include the positioning of a vascular catheter having at least one hinged spreading member positioned at the distal region of the catheter that is responsive to directed force along the longitudinal axis of the catheter. A directed force is applied to the actuator in order to deploy the spreading member and displace a vascular occlusion creating a path to permit the passage of a guidewire or device therethrough.